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ABSTRACT

This paper reports on the promises and pitfalls of the recently legislated basic skills testing requirement for teaching or service credential applicants in California. The California Basic Education Skills Test (CBEST), developed by Educational Testing Service from specifications set by Advisory Board to the State Department of Education, tests reading, writing, and mathematics skills in the English language at a difficulty level expected for college graduates. First administered in 1982, 68 percent of those tested passed the first time. This test promises to help restore parent and public confidence that standards are being applied in teacher selection and to improve teacher education. There are five major problems with the CBEST and other required teacher tests: (1) establishing appropriate passing standards; (2) using pass-fail scores as the only criterion for career entry; (3) redundant testing; (4) fairness of standardized skill testing for the handicapped; and (5) impact on the future ethnic composition of professional school staff. (BS)

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Testing Teacher Applicants with the California Basic Educational Skills Test

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The California Basic Educational Skills Test, more commonly called the CBEST, was developed in response to legislation that became law in 1981 and 1982. This law required that all applicants for a first teaching or service credential demonstrate proficiency in the basic skills of reading, writing and mathematics in the English language. Responsibility for the initial choice of the test to be used was assigned to the State Department of Education. An Advisory Board was established in the law to set the general specifications for the test. A majority of the members of this Board was to be composed of currently practicing teachers, with representation also from boards of education, school administrators, teacher educators, and the general public.

The Test

The Advisory Board defined the general level of difficulty of the skills to be measured as those that one would ordinarily expect of a college graduate. There was a wide range of opinion among the Board members of the specific mathematics skills to be measured, but it was agreed that the test should focus on application of mathematics knowledge rather than on mathematics knowledge per se. There was frequent reference to the desirability of including computer literacy questions in the mathematics section, with no

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consensus on what this might mean, or whether it was reasonable to expect all prospective teachers to have such literacy. It was also specified that the writing section of the test should contain only actual writing; i.e., there should be no multiple choice or short answer questions in this section.

The Department of Education issued a formal Request for Information to publishers and others concerned with educational testing seeking to identify existing tests that might be used to measure the skills identified at the level of difficulty suggested by the Advisory Board. On the basis of the responses, the Department concluded that there was no appropriate test, and that a Request for Proposals to develop and administer such a test should be issued. (The NTE Pre-Professional Skills Test was currently under development, but would not be available for administration in time to meet the requirements of the law.)

A three-year contract for development of the CBEST was awarded to Educational Testing Service (ETS) on the basis of competitive bidding. A second two-year contract has been awarded to ETS, again on the basis of competitive bidding.

The test as developed measures the following skills:

Reading: literal, logical, and critical comprehension.

Mathematics: processes used in problem solving, problem solving applications, and mathematics concepts and principles.

Writing: organization of ideas, consistency of reasoning, presentation of facts to support arguments, mechanics and syntax. This section has two essays which are scored holistically.

The questions for the first two forms of the test were pretested in October 1982 using students enrolled in California teacher preparation programs and prospective substitute teachers who would be required to pass the test to continue service as substitutes. The content validity of the test was assessed using panels totalling about 200 school professional staff members who collectively held virtually all the kinds of teaching credentials for which the test was required. These panel members also provided judgments about the difficulty of each question to be used in the first two forms for minimally qualified entry level professionals using the Angoff-Tucker procedures for arriving at passing standards.

The first regular administration of the test was held in December 1982. The passing standards were established by the newly elected Superintendent of Public Instruction in January 1982, on the basis of the results of the panel and Advisory Board recommendations, the normative data from the first administration, the time-honored wisdom that seventy percent is passing on any test, and campaign promises to raise the quality of teachers entering the California public schools.

The passing standard on the total score, which is the sum of the three section scores, was determined from the passing standard set for each of the three parts. However, a minimum acceptable score on each section was also established. In effect, then the passing standard was established using a mixture of a compensatory model and the separate traits model. The standard error of measurement on each section was considered in establishing the minimum required section score. At this time, a rule had been established that if

the test were not passed using the mixed model requirements, the entire test had to be repeated, even if passing or higher scores were obtained on any one or two sections, in order to minimize the effect of positive errors of measurement. Subsequently, the Legislature specified that a person could not be required to repeat a section already passed, so some can now capitalize on errors of measurement to pass the test.

During the first year of the testing program, 68 percent of those tested passed the test the first time they took it. The passing rates for those who called themselves "White" was markedly higher than it was for those who identified themselves as members of some ethnic minority group, with considerable variation among the various minority groups. The passing rate was also lower for those seeking some kind of bilingual teaching certificate, for those who said English is a second language, and for those who started their post-secondary education at a community college.

About one-third of those who fail repeat the test, with decreasing passing rates for each repetition. Some have now taken the test eight times.

The Promises

The first and most important promise of a basic skills test for teachers is that it will help to restore confidence in parents and the public that standards are being applied in decisions about who will be admitted to the teaching profession. The fact that basic skills proficiency may not be related to teaching competence is probably immaterial in this regard. Most parents deal with teachers at a rather basic skills level, and few things can be

more disheartening to a parent than to receive a badly written communication from a school or teacher, or to hear discussion regarding practices that indicate that the teacher has little command of arithmetic and basic mathematics. It is at the level of teacher and administrator communication that impressions of school effectiveness are established for most parents in a setting that is of great emotional importance to them--their children.

The second promise is that as schools of education and teacher preparation programs adapt and respond to these requirements, the students they enroll will be better able to profit from the training they provide. Since education is such a verbal activity, and reading plays such a crucial role, choosing students are able to read more knowledgeably and critically should result in both simplification and improvement of the training offered. Improvement of writing skills should also make it easier for both the faculty and students to think and communicate more accurately and efficiently.

The importance of mathematical skills for the improvement of teacher preparation programs may be somewhat more problematical. Nevertheless it seems evident that a critical understanting of simple mathematics applications, graph reading, and so on is crucial for much of the material published in the field of education. I assume most of the members of AERA Division D will agree that mathematics skills are of some importance to those entering the teaching or administration profession, but I also acknowledge that we may be biased by self-interest.

The Pitfalls

The first problem, which may be insoluble, is that of establishing appropriate passing standards. If basic skills tests are required as necessary but not sufficient requirements to enter teaching, then comparison groups cannot be available for establishing a passing score based on some external criterion. This leaves only the various judgmental approaches. Without doubt, those that have been used represent real improvement over the traditional normative approach, but they still require from practitioners a quite artificial quantitative statement about something that is a pure abstraction. I have now gone through this process three times, and am in the middle of the fourth attempt. Each time I have tried to profit from experience, but I suspect the changes are largely cosmetic. I am never sure how the directions I give for carrying out the task are heard and understood by those who must necessarily provide the data. When the data are reviewed, it is impossible to think the directions have been understood in the same way by all of the participants, nor is it possible to think that an effective consensus on the minimally qualified entry level professional has been reached. In short, the process is better than any alternative I can think of, but it still leaves me feeling dissatisfied and frustrated.

A second problem is that a score or scores from a three-hour test (or even a full-day test) should not be used alone to make a pass-fail determination of whether a person should enter a career. If the testing requirement is moved to the stage at which a person is entering a teacher preparation program, theoretically it might be possible to assemble other external information relevant to basic skills assessment that might be used in conjunction with the test scores. But even at this stage, it would probably be an extremely

difficult and time consuming task to identify and assemble information about basic skills proficiency that is not badly contaminated by other factors. Additionally, so long as interstate teacher mobility is as important as it is, there will always be many for whom this external skills assessment data could not be available in any uniform way.

A third problem of increasing importance is that of redundancy of skills testing. Within California, this is an obvious problem. The extent of the redundancy depends very much on the particular institution attended by the prospective teacher, and the route by which he or she entered the institution. When teacher mobility among states is considered, the problem becomes more serious.

In this connection it is worth noting that the State of Oregon has recently adopted the CBEST to satisfy requirements in that state similar to those that pertain in California. This will eliminate a dual testing requirement for some number of people. The availability of the NTE Preprofessional Skills Test may also serve to reduce some of the redundancy, but if different States adopt different passing standards and procedures on this test, the repetitive testing for many may remain a problem.

In theory, it should be possible to carry out some kind of equating experiments to establish comparability of scores on the various tests. Each state has enough different requirements that are sacred enough to one or more groups, however, that this will probably not be a very useful effort to reduce redundancy. At the present time, California law would not permit the use of comparable scores. There would seem to be little potential gain from such an

equating study, and perhaps a considerable potential risk.

A fourth problem is that a standardized test is appropriate only if those who must meet the various requirements may be expected to have had a reasonably common kind of foundation and preparation in the basic skills and may be expected to be using these skills in reasonably common kinds of ways on the job. Such assumptions are tested beyond the limits with those who have various kinds of physical or nervous disabilities.

Most large-scale testing programs make exceptions in the administration of standardized testing programs for those with physical handicaps. In the case of the CBEST, these exceptions have been made to the extent that it is possible to say that the test is standardized only to the extent that the questions on any form are the same, and the scoring key is the same. Test administration cannot be standard for many; it would be inappropriate. In spite of these exceptions, the test is almost certainly not an accurate assessment of the skills of a prelingually deaf person whose early education was in a school for the deaf, or of a person with a severe learning disability, or a person with, say cerebral palsy. Their basic skills proficiency can probably not be assessed in any way comparable to that of prospective teachers without such handicaps, nor is it likely that they would be called upon to use such skills in the classroom in the same way. Yet, legal exemptions from the test requirement are not wanted by many who have such handicaps, because it immediately creates a "second-class" credential in the eyes (or fears) of many, nor is it possible to write such exemptions in a way that draws a defensible line between the physically handicapped and others who are ill-prepared in these skills.

Finally, a fifth and very crucial problem is that of the impact of the skills test, or any other common test, requirement on the future ethnic composition of the professional schools staff. At present, California and many other states are moving toward an essentially all white professional staff in the public schools, and any private schools that require their teachers to have state-issued credentials. American society simply cannot afford this.

In the case of the CBEST, a number have charged that the differential passing rates reflect a bias in the test. This charge has been refuted by statistical analysis of the test questions for various ethnic groups, and by detailed review of test questions by panels of specialists knowledgeable about ethnic group bias in educational materials. All questions are subject to an ethnic sensitivity review process by ETS prior to test assembly. The fact that none who have examined actual forms of the test have identified biased questions would support the effectiveness of this sensitivity review.

So far as can be known, the CBEST and other similar tests of skills or knowledge are delivering an unbiased message. This presumed lack of bias does not imply that the message should simply be accepted without concern. It is proper that the establishment of passing standards has moved away from the normative approach to standards, as a consequence, a normative approach to the solution of the impact of the tests on ethnic composition of professional staffs is not possible or desirable. It seems evident that the immediate solution must be sought in the development of effective efforts to improve the skills of those who have been harmed by inadequate skills throughout much of the educational progress. A longer term solution must be sought through improvement of the ways in which the basic skills are acquired before and during the formal schooling process. It will be unfortunate if extensive

time and energy is directed to trying to "correct" the tests, rather than trying to find improved ways of fostering the development of the required skills.

The Pratfalls

The difference between a pratfall and a problem is not clear. I choose to reserve pratfalls to cover those things I would do differently if I were starting all over again on the development and administration of a skills test for teachers. They are not nearly as important as those topics I have discussed as problems, and are of historical interest only. The problems are much more important. Many more problems arise, but this listing should be sufficient for the limited time available in this symposium.